

NRSP-6 (Potato Genebank) Technical Advisory Committee Meeting
June 29-30, 2004

Present: J. Bamberg, P. Bretting, C. Brown (Chair), W. De Jong (Secretary), D. Douches (Vice-Chair), S. Jansky, L-S. Lin, T. Nelson, C-Y. Hu, M. Martin, C. Miller, A. Mosley, R. Novy, S. Reiling, W. Roca, J. Schartner, S. Slack, D. Spooner, R. Tarn, A.M. Thro

1. C. Brown called the meeting to order at 8:30 A.M. The meeting agenda was distributed, introductions were made, and announcements were invited. [Thro, Roca, Novy, and Lin were present as part of an external (five year) review of the genebank. They were joined on June 30 by D. Sklarczyk and R. Lower].

2. Minutes of last years TAC meeting were approved without change.

3. Resolutions committee was appointed (C. Miller, D. Douches, and A. Mosely).

4. S. Slack provided general administrative comments. New guidelines have been developed for NRSP projects. Clear intent of is to support projects of national significance only for a limited duration. Recent letter from Experiment Station Committee on Organization and Policy (ESCOP), detailing what NRSP-6 would need to demonstrate for continued support (project uniqueness, plan for transition to other funding sources), was discussed at length. Slack drafted a reply letter, received feedback, and will send revised letter to ESCOP. Timetable for project renewal: Outline due in September, full proposal in December. ESCOP decision will be made in March 2005.

Slack suggested Bamberg and Bretting make informational (not sales) presentation to experiment station directors in Sept, so that directors, many of whom have held their position for relatively short periods, can learn of potato genebank activities.

Thro suggested that State directors should be asked: do they wish to support crop genebanks in general? Or should they be supported entirely by ARS? Bretting noted that having CSREES support provided operational flexibility, insofar as it allowed state employees to be hired. The potato genebank is located on state, not federal, property.

At present off-the-top CSREES funding provides \$160,000 of genebank annual \$700,000 budget. ARS and Univ. of WI provide the rest. Bretting noted that all genebanks were once funded 50:50 by federal and state sources, but is currently more like 85:15 federal:state. Added that selling the project as leveraging other sources of funding was most likely to succeed.

Nelson stated that farm bill is more oriented towards environmental than production issues, and would likely assume a nutritional emphasis in the future. These priorities should be reflected in project renewal proposal.

6. Technical advisor comments. Regional reports were distributed by Brown, De Jong, Douches, and Miller. For the benefit of the external review panel members present Brown pointed out that one of the largest users of germplasm for research purposes was the genebank

director; Bamberg's role is clearly much more than just curator. De Jong asked whether it was worth revisiting longstanding genebank policy of maintaining relatively few clones, as there is increasing interest in heritage varieties by organic growers. Also suggested that it might be wise to place a priority on maintaining varieties that are outstanding other than for a single weakness that could be repaired in the future by transgenic approaches. Miller noted that potato consumption is so high (circa 140 pounds per capitat) that even small improvements in nutritional quality could make a significant impact on human health. Accordingly together with Bamberg he is continuing to screen germplasm for high antioxidant activity. Douches observed that the North Central Region has had a long history of studies in potato genetics; many of the several thousand accessions distributed in the NCR during 2003 were again requested for this purpose. The other region that requests very large quantities from the genebank is the Northwest; Mosley noted that 2003 requests for this region had doubled compared to 2002. Tarn reported that genetic fingerprinting of many blue-fleshed "varieties" in Fredericton had shown that many were identical; observed the same for some purple skinned/white fleshed clones, and some fingerlings. The Canadian program is also screening for improved nutritional quality (e.g. high antioxidants).

7. Bamberg provided an overview of all genebank activities. Based on recent TAC recommendations has been seeking to increase genebank profile: is working to improve web page, he and M. Martin have made presentations about genebank at annual PAA and Crop Science meetings. His emails to genebank users that describe new material as it becomes available, has increased germplasm requests.

He also discussed 40+ page project renewal proposal at length, received feedback from both TAC and external review panel members.

8. Spooner gave a half-hour minute slide presentation, summarizing current taxonomic efforts. One finding of interest: both molecular and careful phenotypic analyses are unable to separate many so-called potato 'species' into distinct groups.

9. National program leader Bretting distributed a handout and reported that ARS germplasm units as a whole recently hired 15 more scientists. Implications for germplasm users of International Treaty for Plant Genetic Resources for Food and Agriculture, as well as the Convention on Biodiversity, are still not completely clear. The most important issues will hopefully be resolved in the coming year. Rocca noted that 90% of CIP germplasm was acquired before December 1993, and thus not subject to restrictions on distribution and use.

[Meeting suspended 5 pm, resumed 8:30 on June 30. A delicious fish boil intervened.]

10. Resolutions: the following motions were submitted by the Resolutions committee and unanimously approved by participants.

- Whereas, the NRSP-6 Project is reviewed by CSREES every five years; and

Whereas, the 2004 review was scheduled to overlap with the annual meeting of the NRSP-6 TAC in Sturgeon Bay, WI, in order to provide maximum insight into the workings of the Committee and the Project in general; and

Whereas the Review Team was composed of Dr. Liang-Shiu Lin, Dr. Richard Lower, Dr. Richard Novy, Dr. Willy Roca, Mr. Don Sklaczyc, and Chaired by Dr. Ann Marie Thro;

Therefore, be it resolved that the NRSP-6 TAC express sincere appreciation to the review team members for their time and thoughtful evaluation and suggestions regarding the Project.

- Whereas, Charles Chico Fernandez has faithfully served NSRP-6 and the potato industry for more than 25 years; and

Whereas, the National Plant Germplasm System recognized “his dedicated and insightful contributions to the collection, maintenance and characterization of potato genetic resources” by presenting him with the 2004 NPGS Special Achievement Award and cash prize of \$2,000,

Therefore, be it resolved that NRSP-6 personnel and members to the TAC warmly congratulate Charles, on this auspicious occasion and express sincere appreciation for his continuing efforts in promoting NRSP-6 goals relative to germplasm characterization, preservation and distribution.

- Whereas, John Bamberg, David Spooner, Jesse Schartner, Max Martin, Shiela Stoneman, Charles Fernandez and Adele Douglas perform necessary maintenance, conduct original research, collect new germplasm, provide leadership relative to primitive cultivars and wild species, and distribute germplasm without restriction to US scientists and the world at large, and

Whereas, these activities are conducted in an exemplary fashion and as an altruistic service to the scientific establishment and the world at large,

Therefore, be it resolved that we express our appreciation to this elite team of professionals who have made the NRSP-6 a highly respected premiere genebank throughout the potato world.

- Whereas, Dr. John Bamberg and his staff hosted the 2004 meeting of the NRSP-6 in Sturgeon Bay, WI, June 29-30, 2004; and

Whereas, the NRSP-6 staff arranged the excellent meeting facilities, refreshments and accommodations; and

Whereas, the committee is most appreciative of the social and whitefish dinner arranged by the NRSP-6 staff;

Therefore, be it resolved that the NRSP-6 TAC express sincere thanks to the staff for arranging a highly successful and productive meeting.

- Whereas, NRSP-6 personnel prepared materials documenting seven years of progress in collecting, evaluating, distributing, and preserving potato germplasm; and

Whereas, project leader John Bamberg and staff created a nurtured a forum conducive to open, objective exchange of ideas intended to enhance germplasm availability and utilization, and;

Whereas members of the 2004 CSREES review team effectively used all aforementioned materials and available human resources in formulating steps assuring the continued success of NRSP-6 plans and aspirations;

Therefore be it resolved that members of the NRSP-6 TAC express sincere appreciation to all persons present for their dedicated efforts in furthering potato germplasm usage.

11. Executive for coming year:
Secretary: C. Miller
Vice-Chair: W. De Jong
Chair: D. Douches

12. Venue for 2005: Oregon, precise site TBA. A. Mosley hosting. Late June or early July.

13. Meeting adjourned 9:10 am, June 30. Tour of facilities followed.